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10/594,280	09/26/2006	Yoshinori Matsui	2006_1540A	6322
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EXAMINER				
NOFAL, CHRISTOPHER P				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/594,280

Applicant(s)

MATSUI ET AL.

Examiner

Christopher P. Nofal

Art Unit

2169

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,11 and 12 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,3-7,11 and 12 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 02 October 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date 12/16/2008
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

Response to Amendment

1. Applicant's amendment, filed 10/2/2008, has been received, entered into the record, and considered.
2. As a result of the amendment, claims 1, 3 – 7, 11, and 12 have been amended. Claims 2, 8 – 10, 13, and 14 have been cancelled.
3. Claims 1, 3 – 7, 11, and 12 remain pending in the application.

Response to Arguments

4. Applicant's arguments with respect to claims 1, 3 – 7, 11, and 12 have been considered but are moot in view of the new grounds of rejection necessitated by applicant's amendment to the claims.
5. The Examiner respectfully reminds applicant that the test for obviousness is not whether the claimed invention is expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In the instant case, the combined teachings suggest applicant's claimed invention for the reasons set forth in the rejections presented in this Office action.
6. The Examiner respectfully suggests that applicant further amend the claims to highlight the differences between the prior art and applicant's invention.

Election/Restriction

7. In view of applicant's cancellation of non-elected claims 8 – 10, 13, and 14, the Examiner withdraws the restriction requirement set forth in the Office action mailed 2/20/2008. In view of

the withdrawal of the restriction requirement, applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Information Disclosure Statement

8. The information disclosure statement, filed on 12/16/2008, has been received and entered into the record. Since the information disclosure statement complies with the provisions of MPEP § 609, the Examiner has considered the references cited therein. See attached form PTO-1449.

Claim Objections

9. In view of applicant's amendment, the Examiner has withdrawn the pending objection to claim 5.

Specification

10. The substitute specification, filed 10/2/2008, has been received, entered into the record, and considered.

Drawings

11. Replacement drawings were received on 10/2/2008. These drawings are acceptable.

Claim Rejections - 35 USC § 101

12. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

13. **Claims 1 and 3 – 5, as currently amended**, are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The preamble of these claims recites an apparatus. However, use of the word “apparatus” does not inherently mean that the claims are directed towards a machine. Only if at least one of the claimed elements is a physical part of a device can the apparatus constitute part of a device or a combination of devices to be a machine within the meaning of 35 U.S.C. § 101. Thus, one of ordinary skill in the art may conclude that the claimed elements may reasonably be implemented as software routines per se.

14. **Claims 6, 7, and 12 as currently amended**, are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The preamble of these claims recites a “computer-readable recording medium”; however, it is unclear whether the claimed medium encompasses non-**storage** media, such as “broadcast waves” as per paragraph [0093] of applicant’s specification. “Broadcast waves” (paragraph [0093] of the specification) are not a manufacture within the meaning of 35 U.S.C. § 101. In such an embodiment, executable instructions are unable to act as a computer component and have their functionality realized.

15. **Claim 11, as currently amended, *now appears to be untied*** to a computer apparatus. Prior to the amendment, the claims recited a “storage” rule, which appeared to import the limitations of a computerized system. Presently, it is unclear whether the claimed method is necessarily tied to any computer hardware, thereby defining a statutory process. *See In re Bilksi* (Fed. Cir. 2008). A statutory process must (1) be “tied” to another statutory class (such as a particular apparatus) or (2)

“transform” underlying subject matter (such as an article or materials) to a different state or thing. Since the instantly claimed method does not appear to satisfy either requirement, the method is not a “process” within the meaning of 35 U.S.C. § 101.

Claim Rejections - 35 USC § 103

16. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

17. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

18. **Claims 1, 3, 4, 6, 11, and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of **Bachman (US 4,068,300)**, or alternatively as being unpatentable over the admitted prior art in view of **Tiernan et al. (US 6,172,988)**, or alternatively as being unpatentable over the admitted prior art in view of **Goudie et al. (US 2002/0129213)**.

Examiner respectfully notes that “A statement by an applicant in the specification or made during prosecution identifying the work of another as ‘prior art’ is an admission which can be relied upon for both anticipation and obviousness determinations.” See MPEP 2169.

19. **As per claim 1, the admitted prior art** (i.e. the background section of applicant's specification) discloses a **multiplexing apparatus** (paragraph [0001]: a multiplexer) **that generates**

data by assigning different packet identifiers to (i) one of coded video data and coded audio data (paragraph [0001]: video data; paragraph [0005]: coded video and audio data), **and (ii) table data regarding the coded data, and packet-multiplexing the coded data and the table data** (paragraph [0001]: packet-multiplexing video data and table data; paragraph [0005]), said multiplexing apparatus comprising:

a main descriptor generating unit operable to generate a main descriptor (Fig. 3; paragraph [0012]: a descriptor; paragraph [0018]: a descriptor generating unit; Fig. 4 #901)

a table generating unit operable to generate the table data, by associating the main descriptor generated by said main descriptor generating unit, with the packet identifier of the coded data (paragraph [0018]: table generating unit; Fig. 4 #902; Fig. 2; paragraph [0006]: "Program Map Table").

Although the admitted prior art does not explicitly disclose a sub-descriptor generating unit, this feature would have been obvious over the admitted prior art in view of **Bachman (US 4,068,300)**. **Bachman et al.** discloses the concept of a hierarchy of sub-descriptors as part of a scheme of descriptor for use in data processing (Col. 5, lines 50 – 60: "Also included in the system are record descriptors associated with logical records and field descriptors associated with logical fields each being a subset of the former in the hierarchical scheme. Each descriptor provides information concerning the attributes of the logical structure"). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of **Bachman et al.** into the admitted prior art's teachings of a "main descriptor generating unit operable to generate a main descriptor" in order to develop "a sub-descriptor generating unit operable to generate sub-descriptors, each of which includes a sub-tag value representing a type of side information; and the side information, the side information representing a parameter for

decoding the coded data; wherein said sub-descriptor generating unit is operable to output the sub-descriptors in an order defined by a predetermined storage rule; and wherein the main descriptor includes the sub-descriptors generated by said sub-descriptor generating unit, and a main tag value representing a set of the sub-descriptors” because one of ordinary skill in the art would desire to use **Bachman et al.**’s methodology as a reference for solving spatial storage issues while working with descriptors.

Alternatively, the feature of a sub-descriptor generating unit would have been obvious over the admitted prior art in view of **Tiernan et al. (US 6,172,988)**. **Tiernan et al.** discloses generating and storing sub-descriptors associated with private descriptors (Col. 15, lines 3-11) in the TS Format Convergence sub layer (Col. 15, lines 12-50: “For the purposes of implementing the TS Format Convergence Sublayer of the present invention, definitions for the psi_descriptor() and the dvb_descriptor() are required in the preferred embodiment. The psi_descriptor() signals the presence of MPEG2 PSI data in a named Data Channel. The dvb_descriptor() signals the presence of DVB SI data in a named Data Channel. The format of the psi_descriptor() and the dvb_descriptor() is shown in FIG. 9.”). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of **Tiernan et al.** into the admitted prior art’s teachings of a “main descriptor generating unit operable to generate a main descriptor” in order to develop “a sub-descriptor generating unit operable to generate sub-descriptors, each of which includes a sub-tag value representing a type of side information; and the side information, the side information representing a parameter for decoding the coded data; wherein said sub-descriptor generating unit is operable to output the sub-descriptors in an order defined by a predetermined storage rule; and wherein the main descriptor includes the sub-descriptors generated by said sub-descriptor generating unit, and a main tag value representing a set

of the sub-descriptors” because one of ordinary skill in the art would desire to “combine one or more streams of video, audio, and other data into single or multiple streams suitable for storage or transmission” (Col. 16, lines 8-13).

Lastly, the feature of a sub-descriptor generating unit would have alternatively been obvious over the admitted prior art in view of **Goudie et al. (US 2002/0129213)**. **Goudie et al.** explicitly discloses the features of generating and storing sub-descriptors associated with multiplexed data packets (paragraphs [0046] – [0052]). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of **Goudie et al.** into the admitted prior art's teachings of a "main descriptor generating unit operable to generate a main descriptor" in order to develop “a sub-descriptor generating unit operable to generate sub-descriptors, each of which includes a sub-tag value representing a type of side information; and the side information, the side information representing a parameter for decoding the coded data; wherein said sub-descriptor generating unit is operable to output the sub-descriptors in an order defined by a predetermined storage rule; and wherein the main descriptor includes the sub-descriptors generated by said sub-descriptor generating unit, and a main tag value representing a set of the sub-descriptors” because one of ordinary skill in the art would desire to use **Goudie et al.**'s methodology as a reference for solving spatial storage issues while storing data packets.

The Examiner asserts that the arrangement of sub-descriptors of the plurality of sub-descriptors in **ascending order of sub-tag values** would have been obvious to one of ordinary skill in the art at the time the invention was made because one of ordinary skill in the art would desire to incorporate organization into the storage of data. Furthermore, the limitation of the **sub-tag values being natural numbers** is merely nonfunctional descriptive material and not functionally involved in the steps recited. Thus, the descriptive material will not distinguish the claimed invention from

the prior art in terms for patentability. *In re Gulack*, 703 F.2d 1381, 1385, 217, USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

20. **As per claim 3**, the feature of **classifying the sub-descriptors of the plurality of sub-descriptors into groups** would have been obvious to one of ordinary skill in the art at the time the invention was made because one of ordinary skill in the art would desire to incorporate organization into the storage of data.

The limitation of **the earlier and later groupings** is merely nonfunctional descriptive material and not functionally involved in the steps recited. Thus, the descriptive material will not distinguish the claimed invention from the prior art in terms for patentability. *In re Gulack*, 703 F.2d 1381, 1385, 217, USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

21. **As per claim 4**, the feature of an internal memory is expressly taught (paragraph [0019]: information recording medium) by the admitted prior art. The feature of **sorting the sub-descriptors when the sub-descriptors of the plurality of sub-descriptors are not stored in order** would have been obvious to one of ordinary skill in the art at the time the invention was made because one of ordinary skill in the art would desire to incorporate organization into the storage of data.

22. **Claims 6, 11, and 12** are the respective recording medium, method, and computer program claims encompassed by claim 1. Thus, claims 6, 11, and 12 are rejected under the same reasons set forth in connection with the rejection of claim 1.

23. **Claims 5 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over the previously cited references and further in view of **Takahashi et al. (US 6,449,352)**.

24. **As per claim 5, Takahashi et al** discloses **multiplexing flag information** (Col. 5, lines 52-62; multiplexes the flag) and **linking management information with the packet-multiplexed data** (Col. 5, lines 62-67: multiplexing reference time signals to manage the multiplexing of packets). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of **Takahashi et al.** into the teachings of the cited secondary references and admitted prior art in order to develop the features of “a management information generating unit operable to multiplex flag information for specifying the storage rule of the side information, into management information regarding the packet-multiplexed data; and a linking unit operable to link the management information with the packet-multiplexed data” because one of ordinary skill in the art would desire to use **Takahashi et al.**'s methodology as a reference for generating packets and data multiplexing for coding and decoding of the transmission data.
25. **Claim 7** is the recording medium claim encompassed by claim 1. Thus, claim 7 is rejected under the same reasons set forth in connection with the rejection of claim 1.

Conclusion

26. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Nofal whose telephone number is (571)270-3161. The examiner can normally be reached on Monday through Friday, 8:00 a.m. to 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pierre M. Vital can be reached on (571) 272-4215. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

21-Dec-2008

/Christopher P. Nofal/
Examiner, Art Unit 2169

/Pierre M. Vital/
Supervisory Patent Examiner, Art Unit 2169